



EPA Region 5 Records Ctr.



317077

July 6, 2006

Mr. Nabil S. Fayoumi  
U. S. EPA - Region 5  
77 West Jackson Boulevard (SR-6J)  
Chicago, Illinois 60604-3590

**Re: Sauget Sites Area I - January 21, 1999 Administrative Order by Consent (AOC)  
Monthly Report June 1 – June 30, 2006**

Dear Mr. Fayoumi,

Enclosed is the Sauget Sites Area I Monthly Report for the June 2006 reporting period. This submittal is in fulfillment of the monthly requirements of Section 2.4 Reporting, of the January 21, 1999 Final Administrative Order by Consent for Sauget Sites Area I, Sauget and Cahokia, Illinois.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven D. Smith". The signature is fluid and stylized, with a large initial "S" and "D".

Steven D. Smith  
Project Coordinator

**cc:** Kevin Turner – USEPA  
Tim Gouger - USACE  
Sandra Bron - IEPA  
Dave Webb - IDPH  
Mike Coffey - USF&W  
Richard Williams - Solutia  
Cathleen Bumb - Solutia  
Mayor Frank Bergman - Cahokia, IL  
Village of Sauget - c/o P. H. Weis & Associates (Attn: Brian Nelson)  
Mayor R. Sauget - Sauget, IL  
L. Glen Kurowski - Monsanto  
Linda Tape - Husch & Eppenberger

## **Sauget Sites Area I - Sauget, Illinois**

### **AOC - EECA / RIFS**

#### **Status Report**

**Date of Report:** July 10, 2006  
**Period Covered:** June 1, 2006 - June 30, 2006

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#### **Work Performed during the Reporting Period**

##### **DNAPL Investigation**

Results of field work on a DNAPL investigation that began on May 10, 2004 and was completed on October 30, 2004, were presented in a report submitted to the Agency on January 21, 2005. Based on these results, it was agreed that additional DNAPL investigation was warranted and such investigation began on September 16<sup>th</sup> and was completed by the end of December 2005. A supplemental DNAPL report was submitted to the Agency on January 6, 2006.

At a meeting held on January 11, 2006, the results of the additional DNAPL investigation were discussed with the Agency. It was noted that the only location at which potentially recoverable quantities of DNAPL were encountered was at BR-I on Site I. The Agency requested that the potential for removal of pooled DNAPL in this well be evaluated. However, due to an apparent obstruction in the well immediately below the bottom of the casing, this obstruction will have to be removed first before pumping can commence. A Work Plan was prepared that describes how the obstruction will be removed and proposes a procedure for attempting any pooled DNAPL recovery. That Work Plan was submitted on March 3, 2006.

At a meeting held on March 8, 2006, the Work Plan was discussed and it was agreed that it would be revised to include a requirement for liquid level monitoring in BR-I for a week prior to any DNAPL removal from the well. The plan was revised to include that requirement and the revised plan was submitted to the Agency for review and approval on April 10, 2006.

The revised Work Plan was discussed at a meeting on June 9<sup>th</sup> and it was agreed that the plan will be finalized as soon as comments are received from the Agency. At that same meeting, the Agency also indicated that approval of the DNAPL investigation report would be issued shortly.

## **EE/CA and RI/FS Report**

At a meeting held on July 20, 2005, the Agency indicated its desire to proceed with the source control portion of the Area 1 remedy, if possible, and defer the groundwater portion of the remedy until a regional groundwater model for the Sauget area has been developed. It was agreed that regular working meetings would be held to define the various elements of a source control remedy for Area 1 so that the EE/CA report could be finalized.

Based on the discussion at this meeting, the source control issues that need to be addressed are the following

- Necessity of leachate collection;
- Risks of potential migration of soil vapors into indoor air; and
- Principal threat material review and analysis.

A number of Technical Memoranda (TM) and drawings have been prepared and submitted to the Agency for review over the last year. These include the following:

- A TM comparing the potential impacts to groundwater from mass flux through the source areas with those from DNAPL dissolution. That TM has been accepted by the Agency and a final version was submitted to the Agency in January 2006. It concluded that the groundwater impacts from leachate flowing through the waste are very small in comparison to those from DNAPL dissolution. At the meeting held on June 9, 2006, the Agency indicated that approval of this TM would be issued in the near future.
- A TM was submitted on October 20<sup>th</sup>, 2005, summarizing the risks to a recreational child in Dead Creek. The TM concluded that the risks were well below any level of concern. The Agency has asked that this report be updated to conform to recent EPA guidance changes. Some additional information required to make this change was received from the Agency in the middle of March and the TM was revised and submitted to the Agency on April 26<sup>th</sup>, 2006.
- A TM was submitted on October 20<sup>th</sup>, 2006, summarizing the results of the Johnson and Ettinger modeling of potential vapor intrusion into occupied buildings adjacent to the disposal sites. Based on this model, additional soil gas sampling is proposed in the vicinity of these buildings and a Sampling and Analysis Plan was submitted to the Agency on March 3, 2006. The plan was discussed at a meeting held on March 8<sup>th</sup> and the Agency provided written comments on March 24<sup>th</sup>. A revised Sampling and Analysis Plan was submitted to the Agency on April 18<sup>th</sup>. Additional Agency comments were received on May 8<sup>th</sup> and responses to those were submitted on June 6<sup>th</sup>.
- A TM was submitted on January 4<sup>th</sup>, 2006 containing the evaluation of the available source characterization data. This evaluation is intended to identify any

areas of potential principal threat wastes in the disposal areas. At a meeting on January 11<sup>th</sup>, it was agreed that the evaluation indicated that no intact drums are present in the disposal areas. This was confirmed by a review of historical aerial photographs and proposed revisions to the TM documenting that fact were submitted to the Agency on April 11<sup>th</sup>. It was also agreed that data from the On Scene Coordinator's (OSC) files for a removal action carried out by the Agency at Site G will be reviewed to obtain analytical data to evaluate whether particular areas identified in the report contain principal threat wastes. However, at the June 9<sup>th</sup> meeting, the Agency noted that no additional investigations were required since it had concluded that no principal threat wastes had been identified in Area 1. A letter approving this TM will be issued by the Agency in the near future.

- A Sampling Plan for evaluating the potential for cadmium to leach from vadoze zone soils to groundwater was submitted on October 12<sup>th</sup>, 2005. It was proposed that soil samples collected in accordance with the plan would be analyzed for pH and extractable cadmium using the TCLP procedure. Groundwater samples would be collected only at those locations where the cadmium concentration in the TCLP extract exceeded the standard for characteristic hazardous waste. It was noted that this procedure was consistent with the TACO regulations. Agency comments were received on February 8, 2006 and these comments were discussed at a meeting held on March 8<sup>th</sup>. However, prior to that meeting it was agreed that creek bottom soils in CS-E at Transect T16 will be excavated to remove material containing dieldrin that could possibly leach to groundwater at concentrations in excess of Illinois Class I groundwater standards. Similarly, it was agreed that confirmation samples would be taken in CS-D at Transect T6 and in CS-F at Transect T3 to verify that soils containing dieldrin and beta-BHC respectively have been removed. Those samples were obtained in March and the results confirm that the impacted soils have been removed. Soils at Transect T16 will be excavated as soon as access agreements have been finalized with the Illinois Department of Transportation and with the St. Clair County Highway Department.

At the meeting on March 8<sup>th</sup>, it was noted that once these soils were removed, the only constituent of concern would be cadmium. It was agreed that the most appropriate way to evaluate the potential for it to leach to groundwater would be to sample and analyze the groundwater immediately downgradient of the transects containing soils with the highest cadmium concentrations, based on the results of the post excavation sampling performed in 2002. A revised sampling plan was submitted to the Agency on June 8<sup>th</sup>.

- Drawings were submitted and discussed on January 11<sup>th</sup>, 2006 showing the utilities in the immediate vicinity of the disposal areas, together with the limits of waste boundaries. During this January 11<sup>th</sup> meeting, it was agreed that the historical aerial photographs prepared by a testifying expert engaged by the Department of Justice (DOJ) would be reviewed to confirm the waste boundaries. Those photographs were reviewed and no new or extended waste disposal areas

were identified on the basis of the review. Additional details on the location of sewer mains that run under Queeny Avenue and Falling Springs Road in the vicinity of the disposal sites were added to the existing utility drawings and the revised drawings were distributed at the March 8<sup>th</sup> meeting.

Based on the discussion at the March meeting, a proposal was submitted to the Agency on June 6<sup>th</sup> to perform an investigation in the utility corridors along both sides of Queeny Avenue between Sites H and I. The proposal was discussed at the June 9<sup>th</sup> meeting and it was agreed that a Work Plan will be submitted with details of the sampling and analytical programs.

- Potential remedial alternative arrays were discussed at the June meeting. It was agreed that the following four arrays would be considered:
  - Alternative 1 - No Action
  - Alternative 2 - Institutional Controls and Monitoring
  - Alternative 3 - Institutional Controls, Monitoring and Low-Permeability Caps
  - Alternative 4 - Institutional Controls, Monitoring, Low-Permeability Caps and Leachate Collection

A fifth array that included DNAPL treatment in the aquifer beneath the disposal areas was also discussed, together with the consequent need for a pilot test. Because the pilot test will delay the finalization of an EE/CA report, the Agency will decide whether the need for DNAPL remediation should be considered during the EE/CA, or should be evaluated in the RI/FS.

- Proposed changes to the September 2001 Draft EE/CA report were discussed. Many of the areas of disagreement have been resolved and additional information will be submitted to the Agency in an attempt to resolve the outstanding issues.
- At the June meeting, the Agency distributed a draft schedule for the EE/CA and the RI/FS. Comments will be submitted once the schedule has been reviewed.

### **Attachments**

There are no Technical Memoranda or data submitted with this report.

### **Work Scheduled for Next Reporting Period**

Prepare the submittals identified below.

### **Submittal Status**

The following reports and evaluations are scheduled to be submitted to the Agency during the next reporting period:

- A Work Plan for the investigation in the utility corridors between sites H and I.
- .Additional information on changes to the September 2001 draft EE/CA report